

Appl. No. 09/661,481
Amdt. dated September 14, 2003
Reply to Office action of March 14, 2003

REMARKS

Reconsideration is respectfully requested.

Claims 1-3 are pending in the application. Claim 1 is amended here, while claims 2 and 3 remain in their original form.

Claims 1-3 are rejected under 35 U.S.C. §112, second paragraph, as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Applicants amend claim 1 herein and in view of this, the section 112 rejection is believed to no longer apply.

Claim 1 is rejected under 35 U.S.C. §102(e) as allegedly being anticipated by Yoshida et al (U.S. 6,389,049). Applicants respectfully traverse.

The overall concept of the invention of this application is, as is clear from Fig. 1 and from the description in the specification, page 8, line 26 to page 9, line 9, that "the laser gas is continuously excited even during at least one half cycle subsequent to the first half cycle of the oscillating current to sustain the laser oscillating operation". By this feature, it is possible to achieve a long pulse.

In this regard, the Examiner states that Fig. 8 of the cited Yoshida et al discloses that a laser oscillating operation is

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performed by a first half cycle of a discharge oscillating current waveform of one pulse in which polarity is reversed.

However, the waveform in Fig. 8 of the cited Yoshida et al is the voltage waveform of the peaking capacitor Cp, as stated in Yoshida et al, column 5, lines 60-61. The waveform in Fig. 8 of the Yoshida et al document is not the waveform of the discharge oscillation current flowing between the discharge electrodes, with which the present invention is concerned. The cited Yoshida et al makes no mention of either the discharge oscillation current waveform or the laser oscillation waveform. Clearly, Yoshida et al cannot support the rejection under 35 U.S.C. §102(e).

Further, it is respectfully believed that the Examiner is misinterpreting the gist of the invention of this application to mean that "a laser oscillating operation is performed by a first half-cycle of a discharge oscillating current waveform of one pulse in which polarity is reversed".

However, as noted above, the invention of this application does not perform a laser oscillating operation only by a first half-cycle of a discharge oscillating current waveform of one pulse in which polarity is reversed. In the present invention, a laser oscillating operation is performed by a first half-cycle of a discharge oscillation current waveform of one pulse in which

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polarity is reversed, together with at least one half-cycle subsequent to the first half-cycle.

Therefore, applicants respectfully cannot agree with the Examiner's rejection of the present invention as being anticipated by the cited Yoshida et al, which makes no mention of the gist of the present invention. Yoshida et al cannot anticipate the claimed invention.

Claims 2 and 3 are rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Yoshida et al (U.S. 6,389,049) in view of Hoffman et al (U.S. 6,018,537). Applicants respectfully traverse this rejection.

Claims 2 and 3 are dependent on claim 1. Neither of the cited Yoshida et al and Hoffman et al mention that the laser gas is continuously excited even during at least one half-cycle subsequent to the first half-cycle of the oscillating current flowing between the discharge electrodes to sustain the laser oscillating operation, which is the gist of the present invention set forth in claim 1. Combining the documents does not overcome their deficiencies in not teaching or suggesting the claimed invention.

Regarding claims 2 and 3, the present inventors conducted exhaustive studies to attain a novel and unobvious technique, and as a result, determined the characteristics of the electrical circuit components to allow the laser gas to be continuously

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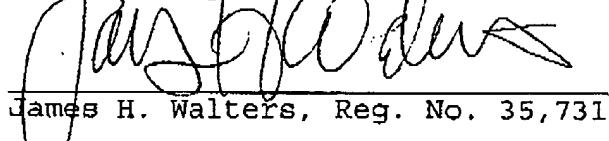
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excited even during at least one half-cycle subsequent to the first half-cycle of the oscillating current flowing between the discharge electrodes to sustain the laser oscillating operation to thereby achieve a long pulse. Accordingly, it is clear that one of ordinary skill in the art could not achieve the invention claimed in claims 2 and 3 of this application.

Claims 1, 2 and 3 are therefore allowable.

In light of the above noted amendments and remarks, this application is believed in condition for allowance and notice thereof is respectfully solicited. The Examiner is asked to contact applicant's attorney at 503-224-0115 if there are any questions.

Respectfully submitted,



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